

REMARKS

Applicants have amended the Title and the Specification pursuant to the objections raised by the Examiner in the outstanding Office Action. Applicants have also withdrawn claims 2-33, as non-elected species. However, as claim 1 is generic to the elected Species I and if it is found allowable, then the remaining claims 2-9 and 13-27 should be rejoined with claim 1 and also be held allowable.

Applicants respectfully traverse the rejection of claim 1 under 35 USC §102(e) as being anticipated by Kloster et al. (U.S. Patent Application Publication No. 2004/0214427). The present invention is directed to a closed air gap interconnect structure comprising: at least two conductive interconnect lines separated by an air gap and supported underneath by a plurality of regions of a robust support dielectric disposed only underneath said interconnect lines and not beneath the air gap,, wherein at least one of said lines is connected to at least one conducting via which is encased in said robust support dielectric, and wherein said lines are capped on top by a cap layer.

To the contrary, Kloster et al. includes a dielectric layer 104 underneath the air gap 105. Moreover, Kloster et al. discloses an air gap between the line without being in contact with a via. Also Kloster et al. includes a solid, continuous via level dielectric which also disposed underneath the air gap which is in direct contradiction to that which is recited in Claim 1, as amended. Accordingly, Kloster et al. neither describes nor suggests that which is recited in Claim 1.

Applicants respectfully traverse the rejection of claim 1 under 35 USC §102(e) as being anticipated by Morrow et al. (U.S. Patent No. 6,661,094). Morrow et al., similar to Kloster et al. also includes a solid, continuous via level dielectric which is disposed underneath the air gap which is contrary to that which is recited in claim 1. Moreover, the two air gaps in Morrow et al. are not are separated by a rail of support dielectric rather than the recited air gap of claim 1 which is separated by at least two conductive interconnect lines. Accordingly, Morrow et al. neither describes nor suggests that which is recited in Claim 1.

Applicants respectfully traverse the rejection of claim 1 under 35 USC §102(b) as being anticipated by Lee (U.S. Patent No. 6,277,705). Similar to both Morrow et al. and Kloster et al. the air gas of Lee are formed between conductive layer 22, dielectric layer 14 and conductive plug 20. This is in direct contradiction of that which is recited in claim 1, which precludes dielectric layer 14 from being disposed directly underneath the air gap. Accordingly, Lee neither describes nor suggests that which is recited in Claim 1.

Applicants respectfully request examination of this application and allowance of the pending claims.

Respectfully submitted,

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